BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Asphalting of Balance roads at Muneshwara layout in ward No-03 of Yelahanka satellite town sub division.

								Estimation Cost.Rs	7000000.00
Sl No	Description of work		Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
1	Removing and refixing stone slabs of drains and pointing in CM (1:3) (PWD SR P.No-27,I No-5.33)								
	Cover Slab	**Sqm**							
	Muneshwara layout								
	4th cross Veerasagara main road								
	RHS	Sqm	1	148.00	0.90		133.20		
	2nd main road (WO176)	Sqm	2	118.00	0.90		212.40		
	5th cross road	Sqm	1	142.60	0.90		128.34		
					Total		**473.94**		
	Deduct 80% for Missing/Damaged						**379.15**		
	Consider 20% Qnty for Removing & Refixing						**94.79**		
	Basic rate	105.00							
	Area weightage 6%	6.3							
	Sub Total	**111.30**							
	Total						**94.79**	**111.30**	**10550.00**
2	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 21-22 Vol -I Pg No 5 item no 1.4.1)								
	New Drain	**Cum**							
	Muneshwara layout								
	4th cross Veerasagara main road								
	RHS	Cum	1	148.00	1.10	0.90	146.52		
	2nd main road (WO176)	Cum	2	118.00	1.10	0.90	233.64		
	5th cross road	Cum	1	142.60	1.10	0.90	141.17		
	New Culvert	**Cum**							
	Muneshwara layout								
	2nd main road (WO176)	Cum	2	6.10	1.40	0.95	16.23		
		Cum	4	6.00	1.40	0.95	31.92		
	Basic rate	186.00							
	Area weightage 10%	18.60							
	Sub Total	**204.60**							
	Total						**569.48**	**204.60**	**116516.00**
3	Providing **One line dressing** to granite stone slab/ granite stone masonry as per speciication (P.No.26, I.No.5.17 of PW,P&IWTD SR 2018-19)								
	BS Cover Slab	Sqm							

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Consider 20% Qnty in Front of House		**From Item no.01**				**94.79**		
	Basic rate	897.00							
	Area weightage 6%	53.82							
	Sub Total	**950.82**							
	Total						**94.79**	**950.82**	**90127.00**
4	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 21-22 Vol -I Pg 15 item no 2.1.3)								
	For Drain	**Cum**							
	Muneshwara layout								
	4th cross Veerasagara main road								
	RHS	Cum	1	148.00	1.10	0.15	24.42		
	2nd main road (WO176)	Cum	2	118.00	1.10	0.15	38.94		
	5th cross road	Cum	1	142.60	1.10	0.15	23.53		
	Culvert								
	Muneshwara layout								
	2nd main road (WO176)	Cum	2	6.10	1.40	0.15	2.56		
		Cum	4	6.00	1.40	0.15	5.04		
	Basic rate	5752.00							
	Area weightage 10%	575.20							
	Sub Total	**6327.20**							
	Total						**94.49**	**6327.20**	**597864.00**
5	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 21-22 Vol -I Pg 17 item no 2.4.2)								
	Drain								
	Bottom Raft	**Cum**							
	Muneshwara layout								
	4th cross Veerasagara main road								
	RHS	Cum	1	148.00	0.90	0.15	19.98		
	2nd main road (WO176)	Cum	2	118.00	0.90	0.15	31.86		
	5th cross road	Cum	1	142.60	0.90	0.15	19.25		
	Side Wall	**Cum**							
	Muneshwara layout								
	4th cross Veerasagara main								
	RHS	Cum	2	148.00	0.15	0.60	26.64		
	2nd main road (WO176)	Cum	4	118.00	0.15	0.60	42.48		
	5th cross road	Cum	2	142.60	0.15	0.60	25.67		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
					Sub Total		165.88		
	Culvert								
	Bottom Raft	Cum							
	Muneshwara layout								
	2nd main road (WO176)	Cum	2	6.10	1.20	0.20	2.93		
		Cum	4	6.00	1.20	0.20	5.76		
	Side Wall	Cum							
	Muneshwara layout								
	2nd main road (WO176)	Cum	4	6.10	0.25	0.60	3.66		
		Cum	8	6.00	0.25	0.60	7.20		
					Sub Total		19.55		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						185.43	7225.68	1339837.00
6	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 21-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					165.88		
		kg	Steel assumed 70Kg/Cum of Concrete				11611.53		
		tonne					**11.61**		
	For Culvert	Cum					19.55		
		kg	Steel assumed 95 Kg/Cum of Concrete				1857.06		
		tonne					**1.86**		
	Basic rate	83780.00							
	Area weightage 10%	8378.00							
	Sub Total	**92158.00**							
	Total						**13.47**	**92158.00**	**1241239.00**
7	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
		Sqm							
	Provide 80% New Slab	**From item no.01**					**379.15**		
	Data rate	**2337.00**							
	Total						**379.15**	**2337.00**	**886079.00**
8	Providing and Fixing pre cast **covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge								
	Culver cover Slab	Sqm							
	Muneshwara layout								
	2nd main road (WO176)	Sqm	2	6.10	1.20		14.64		
		Sqm	4	6.00	1.20		28.80		
	Data rate	**5418.00**							
	Total						**43.44**	**5418.00**	**235358.00**

Sl No	Description of work		Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
9 .	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)								
	Road Cut Portion	**Cum**							
	Muneshwara layout								
	4th cross Veerasagara main road	Cum	1	3.00	0.90	0.23	0.62		
		Cum	1	1.50	0.60	0.23	0.21		
		Cum	1	6.00	1.20	0.23	1.66		
		Cum	1	3.00	1.10	0.23	0.76		
		Cum	1	3.50	1.50	0.23	1.21		
		Cum	1	2.60	0.90	0.23	0.54		
		Cum	1	1.50	0.80	0.23	0.28		
		Cum	1	3.00	1.70	0.23	1.17		
		Cum	1	3.20	0.50	0.23	0.37		
		Cum	1	7.00	1.90	0.23	3.06		
		Cum	1	6.00	2.50	0.23	3.45		
	2nd main road (WO176)	Cum	1	4.00	1.10	0.23	1.01		
		Cum	1	2.60	1.70	0.23	1.02		
		Cum	1	7.20	2.50	0.23	4.14		
		Cum	1	8.10	1.60	0.23	2.98		
		Cum	1	6.00	2.60	0.23	3.59		
		Cum	1	5.50	1.10	0.23	1.39		
		Cum	1	4.20	1.70	0.23	1.64		
		Cum	1	9.10	1.60	0.23	3.35		
		Cum	1	7.50	1.90	0.23	3.28		
	5th cross road	Cum	1	5.00	1.60	0.23	1.84		
		Cum	1	4.20	1.20	0.23	1.16		
		Cum	1	5.00	2.10	0.23	2.42		
		Cum	1	7.20	1.90	0.23	3.15		
		Cum	1	5.10	1.20	0.23	1.41		
	Basic rate	65.00							
	Area weightage 10%	6.50							
	Sub Total	**71.50**							
	Total						**45.68**	**71.50**	**3267.00**
10	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no 24 Item No 4.27 (A))								
	Road cut portion	**Cum**							
	Muneshwara layout								
	4th cross Veerasagara main road	Cum	1	3.00	0.90	0.23	0.62		
		Cum	1	1.50	0.60	0.23	0.21		
		Cum	1	6.00	1.20	0.23	1.66		
		Cum	1	3.00	1.10	0.23	0.76		
		Cum	1	3.50	1.50	0.23	1.21		
		Cum	1	2.60	0.90	0.23	0.54		
		Cum	1	1.50	0.80	0.23	0.28		
		Cum	1	3.00	1.70	0.23	1.17		

Sl No	Description of work		Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
		Cum	1	3.20	0.50	0.23	0.37		
		Cum	1	7.00	1.90	0.23	3.06		
		Cum	1	6.00	2.50	0.23	3.45		
	2nd main road (WO176)	Cum	1	4.00	1.10	0.23	1.01		
		Cum	1	2.60	1.70	0.23	1.02		
		Cum	1	7.20	2.50	0.23	4.14		
		Cum	1	8.10	1.60	0.23	2.98		
		Cum	1	6.00	2.60	0.23	3.59		
		Cum	1	5.50	1.10	0.23	1.39		
		Cum	1	4.20	1.70	0.23	1.64		
		Cum	1	9.10	1.60	0.23	3.35		
		Cum	1	7.50	1.90	0.23	3.28		
	5th cross road	Cum	1	5.00	1.60	0.23	1.84		
		Cum	1	4.20	1.20	0.23	1.16		
		Cum	1	5.00	2.10	0.23	2.42		
		Cum	1	7.20	1.90	0.23	3.15		
		Cum	1	5.10	1.20	0.23	1.41		
	Basic rate	2394.00							
	Area weightage 10%	239.40							
	Sub Total	**2633.40**							
	Total						**45.68**	**2633.40**	**120295.00**
11	KSRRB 500-1.Cleaning the existing WBM Road surface including removing of binding materials and other foreign matter with wire brushes and small picks sweeping with brooms or soft brushes and finally dusting with old gunny bags and bar or compressed air to receive bituminous treatment including cost of all materials, labhour, HOM of machineries complet as per specifications.(PWD SR P.No.158,I.No.21.1)								
	Muneshwara layout	**Sqm**							
	4th cross Veerasagara main road	Sqm	1	3.00	0.90		2.70		
		Sqm	1	1.50	0.60		0.90		
		Sqm	1	6.00	1.20		7.20		
		Sqm	1	3.00	1.10		3.30		
		Sqm	1	3.50	1.50		5.25		
		Sqm	1	2.60	0.90		2.34		
		Sqm	1	1.50	0.80		1.20		
		Sqm	1	3.00	1.70		5.10		
		Sqm	1	3.20	0.50		1.60		
		Sqm	1	7.00	1.90		13.30		
		Sqm	1	6.00	2.50		15.00		
	2nd main road (WO176)	Sqm	1	4.00	1.10		4.40		
		Sqm	1	2.60	1.70		4.42		
		Sqm	1	7.20	2.50		18.00		
		Sqm	1	8.10	1.60		12.96		
		Sqm	1	6.00	2.60		15.60		
		Sqm	1	5.50	1.10		6.05		
		Sqm	1	4.20	1.70		7.14		
		Sqm	1	9.10	1.60		14.56		
		Sqm	1	7.50	1.90		14.25		
	5th cross road	Sqm	1	5.00	1.60		8.00		
		Sqm	1	4.20	1.20		5.04		
		Sqm	1	5.00	2.10		10.50		
		Sqm	1	7.20	1.90		13.68		

Sl No	Description of work		Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
		Sqm	1	5.10	1.20		6.12		
	Basic rate	21.00							
	Area weightage 6%	1.26							
	Sub Total	**22.26**							
	Total						**198.61**	**22.26**	**4422.00**
12	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 (PWD SR 21-22 Vol III Pg no 29 Item No 5.1 A (i))								
	BC Overlay	Sqm	**From Item No. 14**				2131.10		
	Provide 25% Profile Correction for old Road	Sqm	**From Item No. 14**				532.78		
	Road Cut Portion								
	Muneshwara layout								
	4th cross Veerasagara main road	Sqm	1	3.00	0.90		2.70		
		Sqm	1	1.50	0.60		0.90		
		Sqm	1	6.00	1.20		7.20		
		Sqm	1	3.00	1.10		3.30		
		Sqm	1	3.50	1.50		5.25		
		Sqm	1	2.60	0.90		2.34		
		Sqm	1	1.50	0.80		1.20		
		Sqm	1	3.00	1.70		5.10		
		Sqm	1	3.20	0.50		1.60		
		Sqm	1	7.00	1.90		13.30		
		Sqm	1	6.00	2.50		15.00		
	2nd main road (WO176)	Sqm	1	4.00	1.10		4.40		
		Sqm	1	2.60	1.70		4.42		
		Sqm	1	7.20	2.50		18.00		
		Sqm	1	8.10	1.60		12.96		
		Sqm	1	6.00	2.60		15.60		
		Sqm	1	5.50	1.10		6.05		
		Sqm	1	4.20	1.70		7.14		
		Sqm	1	9.10	1.60		14.56		
		Sqm	1	7.50	1.90		14.25		
	5th cross road	Sqm	1	5.00	1.60		8.00		
		Sqm	1	4.20	1.20		5.04		
		Sqm	1	5.00	2.10		10.50		
		Sqm	1	7.20	1.90		13.68		
		Sqm	1	5.10	1.20		6.12		

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Basic rate	44.00							
	Area weightage 10%	4.40							
	Sub Total	**48.40**							
	Total						**731.39**	**48.40**	**35400.00**
13	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))								
	Provide 25% Profile Correction for old Road	Sqm	**From Item No. 12**				532.78		
		Cum		532.78		0.05	26.64		
	Road Cut Portion								
	Muneshwara layout								
	4th cross Veerasagara main road	Cum	1	3.00	0.90	0.05	0.14		
		Cum	1	1.50	0.60	0.05	0.05		
		Cum	1	6.00	1.20	0.05	0.36		
		Cum	1	3.00	1.10	0.05	0.17		
		Cum	1	3.50	1.50	0.05	0.26		
		Cum	1	2.60	0.90	0.05	0.12		
		Cum	1	1.50	0.80	0.05	0.06		
		Cum	1	3.00	1.70	0.05	0.26		
		Cum	1	3.20	0.50	0.05	0.08		
		Cum	1	7.00	1.90	0.05	0.67		
		Cum	1	6.00	2.50	0.05	0.75		
	2nd main road (WO176)	Cum	1	4.00	1.10	0.05	0.22		
		Cum	1	2.60	1.70	0.05	0.22		
		Cum	1	7.20	2.50	0.05	0.90		
		Cum	1	8.10	1.60	0.05	0.65		
		Cum	1	6.00	2.60	0.05	0.78		
		Cum	1	5.50	1.10	0.05	0.30		
		Cum	1	4.20	1.70	0.05	0.36		
		Cum	1	9.10	1.60	0.05	0.73		
		Cum	1	7.50	1.90	0.05	0.71		

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	5th cross road	Cum	1	5.00	1.60	0.05	0.40		
		Cum	1	4.20	1.20	0.05	0.25		
		Cum	1	5.00	2.10	0.05	0.53		
		Cum	1	7.20	1.90	0.05	0.68		
		Cum	1	5.10	1.20	0.05	0.31		
	Basic rate	9889.00							
	Area weightage 10%	988.90							
	Sub Total	**10877.90**							
	Total						**36.57**	**10877.90**	**397797.00**
14	KSRRB 500-2.Cleaning the existing black topped surface with brooms,soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials,labhour, HOM of machineries complete as per specifications.(PWD SR P.No.158,I.No.21.2).								
	BC overlay	**Sqm**							
	Muneshwara layout								
	4th cross Veerasagara main road	Sqm	1	148.00	5.20		769.60		
	2nd main road (WO176)	Sqm	1	118.00	6.10		719.80		
	5th cross road	Sqm	1	142.60	4.50		641.70		
	Basic rate	5.00							
	Area weightage 6%	0.3							
	Sub Total	**5.30**							
	Total						**2131.10**	**5.30**	**11295.00**
15	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 21-22 Vol III Pg no 29 Item No 5.4 (ii))								
	Muneshwara layout	**Sqm**							
	4th cross Veerasagara main road	Sqm	1	148.00	5.20		769.60		
	2nd main road (WO176)	Sqm	1	118.00	6.10		719.80		
	5th cross road	Sqm	1	142.60	4.50		641.70		
	Basic rate	15.00							
	Area weightage 10%	1.50							
	Sub Total	**16.50**							
	Total						**2131.10**	**16.50**	**35164.00**

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
16	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade,level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (PWD SR 21-22 Vol III Pg no 36 Item No 5.16)								
	Muneshwara layout	Cum							
	4th cross Veerasagara main road	Cum	1	148.00	5.20	0.04	30.78		
	2nd main road (WO176)	Cum	1	118.00	6.10	0.04	28.79		
	5th cross road	Cum	1	142.60	4.50	0.04	25.67		
	Basic rate	11531.00							
	Area weightage 10%	1153.10							
	Sub Total	**12684.10**							
	Total						**85.24**	**12684.10**	**1081244.00**
17	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 (PWD SR 21-22 Vol III Pg no 57 Item No 8.15)								
	Muneshwara layout	Sqm							
	4th cross Veerasagara main road	Sqm	2	148.00	0.10		29.60		
	2nd main road (WO176)	Sqm	2	118.00	0.10		23.60		
	5th cross road	Sqm	2	142.60	0.10		28.52		
	Basic rate	478.00							
	Area weightage 10%	47.80							
	Sub Total	**525.80**							
	Total						**81.72**	**525.80**	**42969.00**
18	**Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum.** (Tipper 14 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1)								
	Qty Vide frm Item No-2+9	**Cum**					**615.16**		
	Total						**615.16**	**81.40**	**50075.00**
	Basic rate	74.00							
	Area Weightage 10%	7.40							
	Total	**81.40**							
19	**Cost of Haulage** Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4B)								
	Qty frm Item No-19	**t.Km**		615.16	1.28		**787.41**		
	Total						**787.41**	**115.50**	**90946.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	15Km 7*15	105.00							
	Area Weightage 10%	10.50							
	Total	115.50							
								Grand Total	6249703.00
								GST Charges (12% of estimated cost)	749965.00
								Miscellenious and rounding	332.00
								Total Amount	7000000.00
								RUPEES SEVENTY LAKHS ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,PWD 2021-2022, Issue Rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

Administrative Sanction for Rs. 70.00 Lakhs
Rupees Seventy Lakhs Only
is accorded under head P-0190
Hon'ble Mayors Grants
Registered as CE No. 09 Subject
to conditions contained in enclosed memo
No BBMP/EE/YNK/D/AS/09/22-23 Dt: 12/5/2022

Executive Engineer

Technical Sanction
Accorded For 70.00 Lakhs
Head of A/C P-0190
CER NO : 08 Dt: 12/5/2022

CE